



## PATENT ABSTRACTS OF JAPAN

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KENKYUSHO:KK**(72) Inventor: **ARAKAWA KENJI****(54) EXHAUST GAS PURIFICATION CATALYST****(57) Abstract:**

**PROBLEM TO BE SOLVED:** To purify NO<sub>x</sub> discharged from an internal combustion engine efficiently especially in an oxygen-excess atmosphere by using zeolite containing manganese and other elements as an exhaust gas purification catalyst.

**SOLUTION:** A catalyst comprises zeolite containing manganese, group IIa elements of the periodic table (Mg, Ca, Sr, Ba), group IIIa elements (Sc, Y, La) or group VIII elements (Co, Ni) of the fourth period of the periodic table, a group Ib element (Cu), and a group IIb

element (Zn) and removes NO<sub>x</sub> discharged from an internal combustion engine. The catalyst is obtained by a process in which Na-type ZSM5 slurry 23.8 in silica/alumina ratio is added with magnesium nitrate, agitated under heating, filtered, washed, dried, and baked. The catalyst is molded and crushed to obtain pellets, and its activity is assessed. In this way, when NO<sub>x</sub> discharged from an internal combustion engine is removed especially in an oxygen-excess atmosphere, heat resistance is high, namely an NO<sub>x</sub> reduction rate is low even when exposed to high temperatures for a long time.

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